Earth’s Forces

Study Guide

Investigations 1 and 2 and the Law’s of Motion

Vocabulary (Lab Learner Pages 1 and 8)

* Force
* Gravity
* Motion
* Mass
* Weight
* Balanced forces
* Unbalanced forces
* Speed
* Acceleration
* Distance
* Velocity

Laws of Motion

* Isaac Newton
* 1st Law - An object in motion stays in motion, an object at rest stays at rest unless acted on by an outside force
* 2nd Law – The greater the mass of an object the greater the force needed to make the object accelerate
* 3rd Law – For every action there is an equal and opposite reaction.
* Be able to match the laws of motion to a specific scenario

Speed and Velocity

* Be able to find the speed, distance, and velocity for different scenarios
  + Example: If Abby is traveling for 50 km and it took her 2 hours to get there how fast was her car moving? Answer: 25 km/hr
  + If Abby was traveling at 60km/hr for 3 hours how far did she travel? Answer: 180km
* Be sure to LABEL – km/hr, m/s